

of polymer-based substrate, thereby incorporating the disagreeable taste throughout the plastic compound and hence forming a barrier to chewing animals.

REMARKS

No new matter has been added.

Applicant apologizes for misnumbered claims and thanks Examiner for correcting the numbering of the claims.

RESPONSES TO EXAMINER'S OBJECTIONS

Examiner states:

“[t]he following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than a year prior to the date of application for patent in the United States.”

Applicant applied for a Divisional Patent (the current invention) well before the one-year statute expired; however, due to a series of mishances, the application had the wrong set of claims, the drawings were lost, Examiner's initial Office Action never reached Applicant, and the application eventually went Abandoned. Applicant was able to revive the application, but the filing date has been changed to 06/28/2004. Applicant is under the

impression that a patent issuing on a divisional application will show the serial number and filing date of the parent application; therefore the above provision would not apply.

Claim 1 is objected to as being anticipated or rendered obvious by Alexander et al 5135744. Alexander cites a veritable “laundry list” of candidate bioactive agents; the length of this list exceeds two pages. Alexander specifically mentions Bitrex, but cites an effective concentration whose higher bound (0.03%) is significantly lower than a concentration that Applicant found ineffective (0.2%):

A representative example of an adversive agent which is a bittering agent is denatonium benzoate (Bitrex), (0.001-0.03% by weight of the composition).

Since Alexander cites a specific range as being efficacious, it would not be obvious to one skilled in the art to increase the concentration beyond this range. Had Alexander used wording to the effect of “no less than 0.03% by weight of the composition,” one skilled in the art might reasonably increase the concentration until an effective concentration was reached. Instead, Alexander cites a specific range of concentrations, implying that he has verified that concentrations of Bitrex within this range indeed exhibit a deterrent effect, and there would be no reason for one skilled in the art to doubt the efficacy of this range or to increase the concentration beyond the upper limit cited by Alexander. Applicant suspects that Alexander took a middle value for human aversion (30 ppm is a reasonable middle value from a 20-50 ppm range) and multiplied this value by 100. Applicant arrived at the 0.2% concentration by much the same method: the lower human bound was multiplied by 1000. However, Applicant then went on to perform an actual experiment to determine the efficacy of this theoretical value and found that a 0.2% concentration was

insufficient to deter gnawing by rodents. Note that the lower bound for efficacy cited by Alexander is several orders of magnitude smaller than the concentration that Applicant empirically found to be ineffectual.

Claims 1 and 2 are rejected under U.S.C. 102(b) as being anticipated by Miller 5632999. However, Miller uses plastic as a “sustained release matrix,” which is antithetical to the present invention. Were Bitrex to be released to the environment in a sustained manner by the plastic matrix it has been dissolved in, its efficacy as a deterrent would eventually be compromised, and environmental issues could be raised. The present invention depends on Bitrex being firmly bound and retained by a plastic matrix, and not released. Miller teaches a temporary solubility of pyriproxyfen compositions in plastic that eventually causes the solute to be released; the present invention describes a permanent solubility of Bitrex in a plastic matrix.

Claim 2 is rejected under U.S.C. 112, first paragraph. Claim 2 has been deleted.

In light of the above, Applicant does not feel that the present invention has been anticipated by the Prior Art, Examiner's arguments and cited materials notwithstanding. Therefore it is submitted that patentable subject matter is clearly present. If the Examiner agrees but does not feel that the present claims are technically adequate, applicant respectfully requests that the Examiner write acceptable claims pursuant to MPEP 707.07(j).

Very respectfully,



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Date: 15 March 2005

Inventor's Signature: Ted Ichino